

REMARKS / ARGUMENTS

The present application includes pending claims 1-31, all of which have been rejected. The Applicant respectfully submits that the claims define patentable subject matter. Claims 1, 10-11 and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable by USPP 2004/0039817 ("Lee") in view of USPP 2002/0045435 ("Fantaske"). Claims 2-9, 12-19 and 21-31 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Lee in view of Fantaske and USP 7,058,040 ("Schmidt").

I. Examiner's Response to Arguments

A. Rejection to Independent Claim 1

With regard to the rejection of independent claim 1 under 103(a), the Applicant submits that the combination of Lee and Fantaske does not disclose or suggest at least the limitation of "determining by an access point, a protocol associated with a communication signal for said access point," or "allocating a processor within said access point, said processor compatible with said determined protocol; and processing said communication signal by said allocated processor within said access point," as recited in Applicant's claim 1.

The Final Office Action (pages 7-8) states the following:

At page 15, applicant argues that **Lee does not overcome "allocating a processor within the AP ...compatible to the determined protocol."**

As reply in the Office Action filed on 01/05/2010, **Lee discloses the method of selecting AP based on the determined protocol as shown in Figure 1 and described paragraph [0059].** An access point (AP) is a land station or a mobile station carrying on a service for mobile stations and/or communicating with other APs. Without allocating a processor within the access point, the selected AP is not operable with mobile stations because a processor within AP communicates with a processor within mobile or

handheld phone. For example, in a wireless telephone system, the signals from one or more mobile telephones in an area are received at a nearby base station, which then connects the call to the land-line network. A processor in computer network is commonly use to refer to any hardware that is used for information processing, but not limited to hardware. Therefore, the selected AP/base station based on the determined protocol inherently includes a processor for communication based on one of the selected IEEE 802.11 protocols.

For the amended claim limitations, there should be at least one processor to execute one of the selected protocols in the access point, that is, the processor needs to have protocol compliance in order to implement the selected protocol, otherwise, it is inoperable if there is no protocol compliance. Therefore, the examiner respectfully disagrees.”

The Examiner maintains the allegation that “Lee discloses the method of **selecting AP based on the determined protocol** as shown in Figure 1 and described paragraph [0059]”. The Applicant respectfully disagrees, and points out that the Examiner seems to have misconstrued the Applicant’s claim 1, which recites “determining **by an access point, a protocol** associated with a communication signal **for said access point**”. In other words, the Applicant’s claim 1 recites that, **it is the AP** (i.e., the access point), **not the wireless station** (i.e., the mobile phone or wireless handset), which performs the protocol determination **for itself, upon receiving the communication signal (from the wireless station)**. In this regard, the Examiner is incorrect for at least the following reasons:

(1) Lee (paragraphs [0002] and [0009]) discloses an AP selection method **by a wireless station**. For example, Lee’s Fig. 1 (paragraphs [0057-0059]) discloses a flow chart in AP selection **by the wireless station** (and not an AP). Specifically, Lee (see steps 102-104) discloses that the **wireless station** scans and gets the BSS ID (the alleged “AP” ID). Lee (see steps 108-114) discloses that **the wireless**

station determines which of the 802.11 protocol operating modes (the alleged “protocol associated with a communication signal”) **in the BSS are available**. Lee (see steps 118-130) discloses that **the wireless station chooses the best AP, based on matching (i.e., the alleged “determining”) the AP protocol to its wireless station protocol** (and based on other factors such as the RSSI level and QBSS load on the AP).

Therefore, contrary to the Examiner’s allegation, **Lee does not disclose that the BSS (the alleged “AP”) performs the protocol determination for the AP itself, upon receiving the communication signal (from the wireless station)**. Accordingly, Lee at least does not disclose or suggest “determining by an access point, a protocol associated with a communication signal for said access point;” as recited in the Applicant’s claim 1. In fact, Lee teaches away from the Applicant’s claim 1.

(2) Since Lee (see steps 118-130) discloses that it is the wireless station, and not the AP, which performs all the steps, such as determining by matching the AP protocol to its wireless station protocol, and the AP selection, therefore, Lee also does not disclose or suggest “allocating a processor within said access point, said processor compatible with said determined protocol”, or “processing said communication signal by said allocated processor within said access point,” as recited in the Applicant’s claim 1.

(3) Lee also does not disclose any details about the AP, such as the alleged “processor within the AP”, let alone the alleged “allocated processor within the

access point”. The Examiner in the previous 1/5/10 Office Action relied on inherency arguments for this deficiency #(3).

To support the inherency argument, the Examiner looks to Fantaske’s Fig. 5 to disclose an access point server (210) with a CPU 222 (the alleged processor) that utilizes IEEE 802.3 and IEEE 802.11 protocols (i.e., the alleged “protocols associated with communication signals”). Nevertheless, the Applicant points out that Fantaske, at best, discloses the alleged “processor within the AP”, but not Lee’s above deficiencies #(1) and #(2).

For example, Fantaske does not disclose any allocation of processor within the access point, since Fantaske discloses only a single CPU (i.e., there can be no processor allocation) to perform both the 802.3 protocol and all the 802.11 protocol layers. In this regard, Fantaske does not disclose the alleged “allocating a processor within said access point, said processor compatible with said determined protocol,” or “processing said communication signal by said allocated processor within said access point,” as recited in the Applicant’s claim 1. Fantaske does not overcome Lee’s above deficiency #(2).

In addition, Fantaske, likewise, also does not disclose or suggest that the AP performs its protocol determination, upon receiving communication signals from a wireless station. In this regard, Fantaske does not disclose the alleged “determining by an access point, a protocol associated with a communication signal for said access point,” as recited in the Applicant’s claim 1. Fantaske does not overcome Lee’s above deficiency #(1).

Based on the foregoing rationale, the Applicant maintains that the combination of Lee and Fantaske does not establish a prima facie case of obviousness to render Applicant's claim 1 unpatentable. Claim 1 is submitted to be allowable, and respectively requests that the rejection to claim 1 under 35 U.S.C. 103(a) be withdrawn.

B. Rejection to Dependent Claim 2

With regard to the rejection of dependent claim 2 under 103(a), the Applicant submits that the combination of Lee, Fantaske and Schmidt does not disclose or suggest at least the limitation of **"selecting said allocated processor from a pool of available processors within said access point, for said processing of said communication signal,"** as recited in Applicant's claim 2.

The Final Office Action (pages 7-8) states the following:

"At page 18, with respect to claim 2, applicant argues that **Schmidt does not disclose or suggest that the bank of DSPs is for use within an AP.**

As reply in the advisor action filed on 01/21/2009, Schmidt discloses a pool of available processors such as MIPS processor and/or one or more digital signal processors (DSPs) which are configured to operate optimally on specific problems (see col.5, ln.51-59). **It is not necessary that the DSPs be for use within an AP in the system of Schmidt** because one or more digital signal processors (DSPs) is used to operate optimally on specific problems as described in col.5, lns.51-59 and the bank of DSPs can be optimized to handle discrete cosine transforms as described in col.5, lines 59-66, whereas one of the processors can be used to handle other specific operation such as operating for one of the selected IEEE 802.11 protocols. **Therefore, multiple DSPs disclosed by Schmidt can be applied to the specific protocols in system of Fantaske because DSP is configured to operate optimally on specific problems/tasks as suggested by Schmidt.** Further, ordinary person in the art know that DSP is designed for containing architectural optimizations to speed up processing and these optimizations are also important to lower costs, heat-emission and power-consumption. Therefore, the examiner respectively disagrees."

The Examiner, by his own admission, agrees with the Applicant that **Schmidt only discloses that the bank of DSPs (the alleged “pool of available processors”), are used in the wireless communication device, but not in an AP.** The Examiner, however, alleges that “Schmidt’s multiple DSPs (the alleged “pool of available processors”) can be applied to the specific protocols (802.11) in system of Fantaske (i.e., the AP) because DSP is configured to operate optimally on specific problems/tasks as suggested by Schmidt”.

The Applicant respectfully disagrees, and points out that the Examiner’s argument is still deficient in the following ways:

(1) Schmidt, in the entire reference, does not disclose or suggest implementing the same multiple DSPs (the alleged “pool of available processors”) to perform the alleged “selecting said allocated processor from a pool of available processors ... for said processing of said communication signal” within an alleged AP (i.e., Schmidt’s Base Transceiver Station (BTS)). On the contrary, **Schmidt discloses that the bank of DSPs (the alleged “pool of available processors”), are used in the wireless communication device only, but not in an AP.**

(2) Fantaske, likewise, also does not disclose or suggest the AP performs any allocation of processor within the access point, since Fantaske discloses only a single CPU (i.e., there can be no processor or DSP allocation) to perform both the 802.3 protocol and all the 802.11 protocol layers, let alone suggesting implementing Schmidt’s multiple DSPs (the alleged “pool of available processors”) to perform the

function of “selecting said allocated processor from a pool of available processors ... for said processing of said communication signal”, as alleged by the Examiner.

In this regard, the Applicant submits that the Examiner’s above allegations, namely, that Schmidt’s multiple DSP can be applied to Fantaske’s AP to perform “selecting said allocated processor from a pool of available processors ... for said processing of said communication signal”, is merely a conclusory statement without factual support (see the MPEP §2142).

The Applicant therefore maintains that Schmidt does not overcome Lee’s deficiency #2 (as well as Fantaske’s deficiency), namely, Schmidt does not disclose or suggest “selecting said allocated processor from a pool of available processors within said access point, for said processing of said communication signal,” as recited in the Applicant’s claim 2.

(3) Moreover, the Applicant also points out that Schmidt also does not overcome Lee’s deficiency #(1), namely, Schmidt does not disclose or suggest “determining by an access point, a protocol associated with a communication signal for said access point;” as recited in Applicant’s claim 1. Therefore, dependent claim 2 should also be allowable at least for its dependency from claim 1.

Accordingly, the Applicant maintains that the combination of Lee, Fantaske and Schmidt does not establish a prima facie case of obviousness to render Applicant’s claim 2 unpatentable, claim 2 is submitted to be allowable.

Since Applicant’s independent claim 21 is rejected based on the combination of claims 1 and 2, therefore, independent claim 21 is also submitted to be allowable for the rationale presented in claims 1 and 2 above.

REJECTION UNDER 35 U.S.C. § 103

In order for a *prima facie* case of obviousness to be established, the Manual of Patent Examining Procedure, Rev. 6, Sep. 2007 ("MPEP") states the following:

The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385, 1396 (2007) noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Federal Circuit has stated that "rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness."

See the MPEP at § 2142, citing *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006), and *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d at 1396 (quoting Federal Circuit statement with approval). Further, MPEP § 2143.01 states that "the mere fact that references can be combined or modified does not render the resultant combination obvious unless the results would have been predictable to one of ordinary skill in the art" (citing *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385, 1396 (2007)). Additionally, if a *prima facie* case of obviousness is not established, the Applicant is under no obligation to submit evidence of nonobviousness.

The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.

See MPEP at § 2142.

II. The Proposed Combination of Lee and Fantaske Does Not Render Claims 1, 10-11 and 20 Unpatentable

A. Rejection of Independent Claims 1 and 11

With regard to the rejection of independent claim 1 under 103(a), the Applicant submits that the combination of Lee and Fantaske does not disclose or suggest at least the limitation of “determining by an access point, a protocol associated with a communication signal for said access point,” or “allocating a processor within said access point, said processor compatible with said determined protocol, and processing said communication signal by said allocated processor within said access point,” as recited in Applicant’s claim 1.

The Final Office Action states the following:

“Regarding claim 1, Lee discloses a method for providing communication in a multi-band multi-protocol hybrid wired/wireless network, the method comprising:

- determining a protocol (selecting one of 802.11 family protocols, see 110-114 fig.1 and ¶29) associated with a communication signal for an access point (AP) (signal associated with AP, see ¶29);
- allocating a processor within the access point (**inherently allocating/assigning a processor** within the selected AP for communication, see 138 fig.1 and ¶59); and
- processing the communication signal by the allocated processor (process the communication signal by the allocated processor within the selected AP, see 138 fig.1 and ¶59).”

See the Final Office Action at pages 2-3. The Examiner is referred to Applicant’s above arguments in subsection I-A regarding Lee’s deficiencies, which are summarized as follows:

I-A(1): Lee does not disclose that the BSS (the alleged “AP”) performs the protocol determination for the AP itself, upon receiving the communication

signal (from the wireless station). Accordingly, Lee at least does not disclose or suggest “determining by an access point, a protocol associated with a communication signal for said access point;” as recited in Applicant’s claim 1. In fact, Lee teaches away from Applicant’s claim 1.

I-A(2): Since Lee (see steps 118-130) discloses it is the wireless station (not the AP) which performs all the steps, such as determining by matching the AP protocol to its wireless station protocol, and the AP selection, therefore, Lee also does not disclose or suggest “allocating a processor within said access point, said processor compatible with said determined protocol”, or “processing said communication signal by said allocated processor within said access point,” as recited in Applicant’s claim 1.

I-A(3): Lee also does not disclose any details about the AP, such as the alleged “processor within the AP”, let alone the alleged “allocated processor within the access point”.

The Examiner concedes the following about Lee in the Final Office Action (see page 3):

“Lee discloses the method of determining one of the best access protocol at mobile station, but silent on the amended claim “determining by an access point.”

However, Fantaske discloses an access point server provided with protocols comprising an IEEE 802.3 protocol and an IEEE 802.11 protocol layer (see 110 fig.1 and ¶34).

To support the inherency argument, the Examiner looks to Fantaske’s Fig. 5 to disclose an access point server (210) with a CPU 222 (the alleged processor) that

utilizes IEEE 802.3 and IEEE 802.11 protocols (i.e., the alleged “protocols associated with communication signals”). Nevertheless, the Applicant points out that Fantaske, at best, discloses the alleged “processor within the AP”, but not Lee’s above deficiencies #(1) and #(2). The Examiner is referred to Applicant’s above arguments in section I.

For example, Fantaske does not disclose any allocation of processor within the access point, since Fantaske discloses only a single CPU (i.e., cannot have any processor allocation) to perform both the 802.3 protocol and all the 802.11 protocol layers. In this regard, Fantaske does not disclose the alleged “allocating a processor within said access point, said processor compatible with said determined protocol,” or “processing said communication signal by said allocated processor within said access point,” as recited in Applicant’s claim 1. Fantaske does not overcome Lee’s above deficiency #(2).

In addition, Fantaske, likewise, also does not disclose or suggest that the AP performs its protocol determination, upon receiving communication signals from a wireless station. In this regard, Fantaske does not disclose the alleged “determining by an access point, a protocol associated with a communication signal for said access point,” as recited in Applicant’s claim 1. Fantaske does not overcome Lee’s above deficiency #(1).

Based on the foregoing rationale, the Applicant maintains that the combination of Lee and Fantaske does not establish a prima facie case of obviousness to render Applicant’s claim 1 unpatentable. Claim 1 is submitted to be allowable, and

respectively requests that the rejection to claim 1 under 35 U.S.C. 103(a) be withdrawn.

Independent claims 11 and 21 are similar in many respects to the independent claim 1. Therefore, the Applicant submits that independent claims 11 and 21 are also allowable over the combination of Lee and Fantaske at least for the reasons stated above with regard to claim 1.

B. Rejection of Dependent Claims 10 and 20

Based on at least the foregoing, the Applicant believes the rejection of independent claims 1 and 11 under 35 U.S.C. § 103(a) as being unpatentable by the combination of Lee and Fantaske has been overcome and requests that the rejection be withdrawn. Additionally, claims 10 and 20 depend from independent claims 1 and 11, respectively, and are, consequently, also respectfully submitted to be allowable.

III. The Proposed Combination of Lee, Fantaske and Schmidt Does Not Render Claims 2-9 and 12-19 and 21-31 Unpatentable

Based on at least the foregoing, the Applicant believes the rejection of independent claims 1, and 11 under 35 U.S.C. § 103(a) as being unpatentable by the combination of Lee and Fantaske has been overcome and requests that the rejection be withdrawn. Schmidt does not overcome the deficiencies of Lee and Fantaske. Additionally, claims 2-9 and 12-19 and 22-31 depend directly or indirectly from independent claims 1, 11, and 21, respectively, and are, consequently, also respectfully submitted to be allowable.

A. Rejection of Dependent claims 2, 12, 22 and Independent Claim 21

The Final Office Action states the following at page 7:

“Regarding claim 21, it is a system claim corresponding to the method claim 1 and 2 and is therefore rejected for the similar reasons set forth in the rejection of the claims 1 and 2.”

The Examiner rejects Applicant's independent claim 21 based on the rejection arguments by combining claims 1 and 2. The Final Office Action states the following at page 4:

“Regarding claim 2, Lee and Fantaske are silent on "selecting the allocated processor from a pool of available processors for the processing of the communication signal." However, Schmidt discloses a pool of available processors such as MIPS processor and/or one or more digital signal processors (DSPs) which are configured to operate optimally on specific problems (see col.5, ln.51-59). Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to apply the method of allocating/assigning a specific processor among the processors as taught by Schmidt into the system of Lee and Fantaske. The motivation is to operate on specific problem optimally and efficiently. For example, the bank of DSPs can be optimized to handle discrete cosine transforms (Schmidt, see col.5, lines 59-66), whereas one of the processors can be used to handle other specific operation such as operating for one of the selected IEEE 802.11 protocols.”

The Examiner is referred to Applicant's arguments in the above section I-B as follows:

(1) Schmidt, in the entire reference, does not disclose or suggest implementing the same multiple DSPs (the alleged “pool of available processors”) to perform the alleged “selecting said allocated processor from a pool of available processors ... for said processing of said communication signal” within an alleged AP (i.e., Schmidt's Base Transceiver Station (BTS)). On the contrary, **Schmidt discloses that the**

bank of DSPs (the alleged “pool of available processors”), are used in the wireless communication device only, but not in an AP.

(2) Fantaske, likewise, also does not disclose or suggest the AP performs any allocation of processor within the access point, since Fantaske discloses only a single CPU (i.e., there can be no processor or DSP allocation) to perform both the 802.3 protocol and all the 802.11 protocol layers, let alone suggesting implementing Schmidt’s multiple DSPs (the alleged “pool of available processors”) to perform the function of “selecting said allocated processor from a pool of available processors ... for said processing of said communication signal”, as alleged by the Examiner.

In this regard, the Applicant submits that the Examiner’s above allegations, namely, that Schmidt’s multiple DSP can be applied to Fantaske’s AP to perform “selecting said allocated processor from a pool of available processors ... for said processing of said communication signal”, is merely a conclusory statement without factual support (see the MPEP §2142).

The Applicant therefore maintains that Schmidt does not overcome Lee’s deficiency #2 (as well as Fantaske’s deficiency), namely, Schmidt does not disclose or suggest “selecting said allocated processor from a pool of available processors within said access point, for said processing of said communication signal,” as recited in the Applicant’s claim 2.

(3) Moreover, the Applicant also points out that Schmidt also does not overcome Lee’s deficiency #(1), namely, Schmidt does not disclose or suggest “determining by an access point, a protocol associated with a communication signal

for said access point;" as recited in Applicant's claim 1. Therefore, dependent claim 2 should also be allowable at least for its dependency from claim 1.

Accordingly, the Applicant maintains that the combination of Lee, Fantaske and Schmidt does not establish a prima facie case of obviousness to render Applicant's claim 2 unpatentable, claim 2 is submitted to be allowable. Likewise, claims 12 and 22 are also allowable at least for the reasons stated above with regard to claim 2.

Since the Examiner rejects Applicant's independent claim 21 based on the combination of claims 1 and 2, therefore, independent claim 21 is also submitted to be allowable at least for the reasons stated above with regard to claims 1 and 2.

B. Rejection of Dependent Claims 3-9, 13-19, 23-29 and 31

Claims 3-9, 13-19, 23-29 and 31 are submitted to be allowable based on their dependencies on claims 2, 12 and 22, respectively.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claims 1-31.

CONCLUSION

Based on at least the foregoing, the Applicant believes that all claims 1-31 are in condition for allowance. If the Examiner disagrees, the Applicant respectfully requests a telephone interview, and requests that the Examiner telephone the undersigned Patent Agent at (312) 775-8093.

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to the deposit account of McAndrews, Held & Malloy, Ltd., Account No. 13-0017.

A Notice of Allowability is courteously solicited.

Respectfully submitted,

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